AMENDMENTS TO THE CLAIMS

        This listing of claims will replace all prior versions and listings of claims in the

application:

LISTING OF CLAIMS:

1.   (Currently Amended) A method of predicting, by utilizing a finite element method, a
shape of a wiring structure in which the wiring structure constituted by a line streak member
covered by an exterior member is regarded as an elastic body in which a plurality of beam
elements a linearity of which is maintained are coupled with each other, the method comprising:
   a drawing step of drawing the wiring structure having an arbitrary shape by a manual
        operation;
   using a computer, performing:
        a shape characteristic extracting step of extracting shape characteristic from the drawn
             wiring structure;
        a constraining condition extracting step of extracting constraining condition from the
             drawn wiring structure;
        a material characteristic calculating step of calculating material characteristic of the
             drawn wiring structure based on the drawn wiring structure; ~~and~~
        a predicted shape calculating step of calculating a predicted shape which is brought into a
             physical equilibrium state by applying the shape characteristic, the constraining
             condition and the material characteristic to the finite element method; and
        a preserving step comprising one or more of: (1) storing the predicted shape in a storing
             apparatus, and (2) printing the predicted shape from a printing apparatus.

2.   (Original) The method according to claim 1, wherein a characteristic table representing relationships among type, boldness and material characteristic of the exterior member is previously stored, and

wherein the material characteristic calculating step calculates the material characteristic of the drawn wiring structure by applying type and boldness of the exterior member calculated based on the drawn wire harness to the characteristic table.

3.   (Original) The method according to claim 2, wherein in the characteristic table, longitudinal modulus of elasticity or transverse modulus of elasticity of the exterior member is treated as the material characteristic of the exterior member.

4.   (Original) The method according to claim 1 further comprising:

an alarm outputting step of outputting an alarm when it is determined that the predicted shape which is brought into the physical equilibrium state is impossible to be calculated based on the wiring structure drawn according to the manual operation.

5.   (Currently Amended) An apparatus of predicting, by utilizing a finite element method, a shape of a wiring structure in which the wiring structure constituted by a line streak member covered by an exterior member is regarded as an elastic body in which a plurality of beam elements a linearity of which is maintained are coupled with each other, the apparatus comprising:

a drawing unit for drawing the wiring structure having an arbitrary shape by a manual operation;

a shape characteristic extracting unit for extracting shape characteristic from the drawn wiring structure;

a constraining condition extracting unit for extracting constraining condition from the drawn wiring structure;

a material characteristic calculating unit for calculating material characteristic of the drawn
    wiring structure based on the drawn wiring structure; ~~and~~

a predicted shape calculating unit for calculating a predicted shape which is brought into a
    physical equilibrium state by applying the shape characteristic, the constraining condition
    and the material characteristic to the finite element method; and

a storage;

wherein said predicted shape is calculated, and stored in the storage.

6.   (Original) A computer readable recording medium storing a program which cause a
computer to function as an apparatus of predicting, by utilizing a finite element method, a shape
of a wiring structure in which the wiring structure constituted by a line streak member covered
by an exterior member is regarded as an elastic body in which a plurality of beam elements a
linearity of which is maintained are coupled with each other, the program causing the computer
to function as:

a drawing unit for drawing the wiring structure having an arbitrary shape by a manual
    operation;

a shape characteristic extracting unit for extracting shape characteristic from the drawn wiring
    structure;

a constraining condition extracting unit for extracting constraining condition from the drawn
    wiring structure;

a material characteristic calculating unit for calculating material characteristic of the drawn
    wiring structure based on the drawn wiring structure; and

a predicted shape calculating unit for calculating a predicted shape which is brought into a
    physical equilibrium state by applying the shape characteristic, the constraining condition
    and the material characteristic to the finite element method.

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